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UNITHERM Food Systems, Inc.
Cooking Trial Data

Product: Turkey Breast		Date: 7/3		Supplied By: Bob Wood		
Test #	Belt Speed	Cook Time	Temperatures C.	Internal Temp. F.	Remarks	
			Zone 1 Zone 2			
#1	35.0	8.0	600°	650°	44° NEEDED REDUCE SMOKE @ 302 24	
#2	46.0	6.0	600	650	44° TOO DRY &	
#3	<u>DAV NEU AN</u>				45° liquid smoke	
#4	37.0	3 min	600	650		
#5						
#6						

NOTES

#1
#2
#3
#4
#5
#6

U-04193

PTO-004157

UNITHERM Food Systems, Inc.

Cooking Trial Data

Product:

Cup O' Noodles

Date: 7/3

Test #	Belt Speed	Cook Time	Temperatures C.		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Supplied By:	Remarks
			Zone 1	Zone 2						
#1	70	48 min	600	650				44	30%	24 P
#2	90	34 min	600	650				44	30%	24 P
#3										
#4										
#5										
#6										

NOTES

#1

#2

#3

#4

#5

#6

U-04194

PTO-004158

Unitherm

10-14-97

- * Bank should be coated before removing nets
to ease their removal.
- * Cen. is built
 - CIP and Animal waste
 - Intra Red and air risers
 - Auto loader complete end of this week
- * Central feed bags are freighted on Monday
- * Weather temp will be necessary in the 1st week of November
- * Full operation not planned until 15th week in December
- *** Red Harbor or Unitherm we will build Discharge tanks ***
- * Bag removal won't be complete until early next week
- * 30 minutes for ferment
 - Welds?
 - Juice collecting
 - Cost of cutting blocks
 - Tank washer for bag slitter will accumulate protein
 - ↳ plumb water to bag washer
 - Who is building table
- 7 layers of 5 mil white L-Schufc

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U-06962

PTO-004159

* After AMT has had step press ^{on} sec.

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U-06963**

			Start	Stop
8-43 (sec)	8-43 → 7002	60 Hz 11:05:50		11:06:30
11:13.10	Surface temperature	Up Tad fast run through 2 more		
11:13.31		(60 Hz 11:06:56) 11:07:00		
11:13.52	Liquid Smoke	422 Hz 11:06:00	11:11:54	
33% off	Over	48 Hz 11:11:50	11:18:30	
Little 10% off	NET cur change 10% off	Speed up		
bit.	Variation	Over / try faster (off)		

6243 -> 7082 Weight 4.38 If
9.26

10:22.4 40 1/2 NT
F. 34

25°07'00" SMOG 11:36.4 50 1/2 1138.11

WT at 10:22.4
SmoG 50 1/2
11:36.4
50 1/2
11:45.50

Not Burned

Weight 104
2.920
2.895

6243 -> 7082

10.225 after strip

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U-06964

PTO-004161

10-51
3.2

Weight	Temp	Depth	Date
9.935	340.30	1.12.30	1.1.45.5
10.195	1040.00	1.0.00.30	1.1.45.5
10.575			
10.520			
10.185			
10.615			
10.740			
10.69			

After 100 f.c.

2.69	92.4	9.675	1	2
2.59	92.5	9.940	$\frac{1}{2}$	$\frac{1}{4}$
3.69	96.4	10.190	$\frac{1}{2}$	$\frac{1}{4}$
92.6	<u>10.372</u>			
92.3	<u>9.855</u>			
97.8	<u>10.015</u>	\rightarrow TOP 6.000		
92.6	<u>10.020</u>			
96.9	<u>10.355</u>	Surface Temp	72° F	

2168
2185

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PTO-004162

1000-02
E-06 C-11

9.585 12:55:20 12:56:15 12:58:31
0.905

9.34
0.640

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PTO-004163

Ovens

- Belt wash to be set at end of ovens.
- 7' extension on oven track to go through walls

Bag Slitter

- Condensed Barrel fits under table.
- Extend 15' to go through wall.
 - legs. set back 1' to accomodate for I.R.
 - Being longer. By 1'
- Pan under knife to catch Purge
- Check on how easy or hard the bags come off.

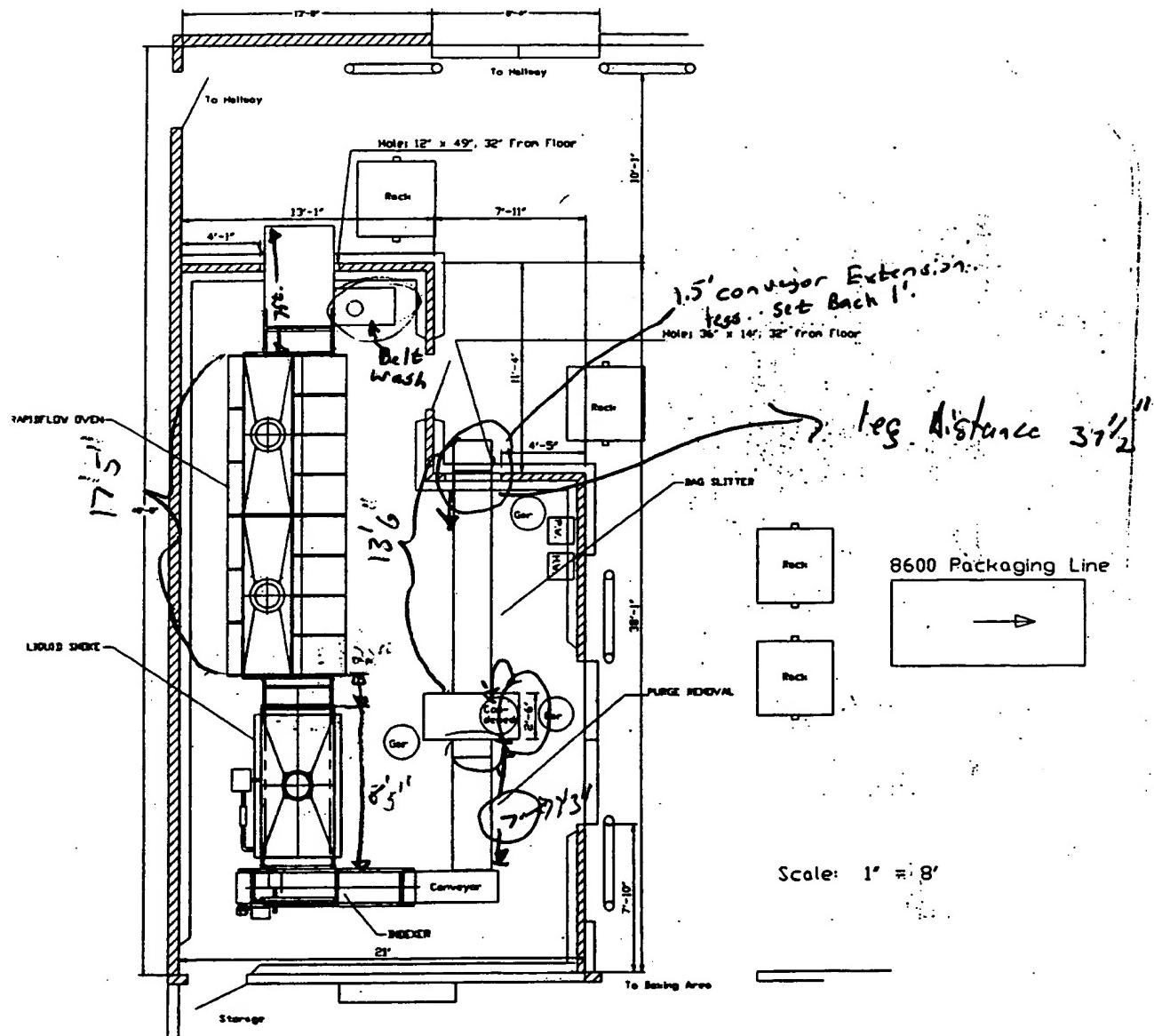
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Liquid Smoke applicator

- Red Arrow. suggested changes.
- 2 overnight storage tanks.

	Net/No		Skinned/Skinless
7001	Net	Mess	Skin On
7002	Net	Hick	Skin On
8246-32	No Net	MIS	Skinless
8246-02	No Net	Hick	Skinless
8243	With net	MSS	Skin On
8244-02	With net	Hick	Skin On
8247	No net	MSS	No Skin
8246	No net		No Skin
7001	No net	MESS	Skinless

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PTO-004165

Hormel Foods Research Report

Attentti n: W. Thielen - CO L. Huston - CO

Project Nam : CURE-81 Hams processed at Unitherm

Copy List:

M. Benson - R&D	G. Ray - CO	C. Cornell - CO
D. Ruzek - R&D	R. Slavik - CO	
G. Paxton - CO	J. Swedberg - CO	

Written By: S. Hoevet - 5822 J. Ulrich - 5810

Objective:

Evaluate CURE-81® hams further processed at Unitherm

Summary:

A cutting was held at R&D on October 21, 1997. Those attending were F. Dryden, W. Thielen, D. Ruzek, L. Huston, G. Paxton, C. Cornell, G. Ray, J. Swedberg, R. Slavik and J. Ulrich.

Product shown:

CURE-81® control

CURE-81® hour smoke only

Test #1: No preheat, 1.5 min. liquid smoke with RA24 at 25%, 3 min. cook

Test #2: 50 sec. preheat, 1.5 min. liquid smoke with RA24 at 25%, 3 min. cook

Test #3: 30 sec. preheat, 1.5 min. liquid smoke with RA24 at 25%, 3 min. cook

Test #4: 30 sec. preheat, 1.5 min. liquid smoke with RA24 at 30%, 3 min. cook

Test #3 was selected as having the best color. Color tone and consistency were excellent. Negatives included a thicker rind and a bitter taste to the rind.

Recommendation:

1. Drop the smoke concentration to 15% or 20% to eliminate bitter taste
2. If color is comparable, eliminate the preheat to reduce the rind
3. For maximum shelf life:
 - a. process from cold
 - b. connect oven to chill tunnel to reduce surface temperature
 - c. package immediately

Jennie-O is buying a Unitherm unit which may be available for further testing. Steve Hoevet suggests additional testing be done at Unitherm with a large quantity of hams to test out the above recommendations.

All product from Test #3 was put into the shelf life cooler.

SMOKE CYCLE

<u>TIME</u>	<u>DRY BULB</u>	<u>WET BULB</u>	
:45	140	120	
:60	150	125	Wood Smoke
:90	150	130	
:90	160	140	
:60	170	150	
--	170	170	Steam Cook to IT 148° - 150°F

pjh (14205)

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U-06861

~~W/JETS~~

UNITHERM Food Systems, Inc.

Cooking Trial Data

T #	Belt Speed	Cook Time		Product: FRENCH FRIES		Start Weight	Cooked Weight	Yield	Internal Temp. F.	Remarks
		Zone 1	Zone 2	C. Temperature	C. Temperature					
	SLOW									
#1	45.00	600	650							SMOKE: SELECT 24P 30% NET/SPRAY MORE T.A.GRILL: 40 SEC.
#2	38.00	525	600							24P 30% GRILL 45SEC. TIGHTEN LIGHT SPRAY
#3	38.00	525	600							
#4	35.01	475	550							AUTOMATIC SMOKE APPICATOR @ 55%
#5										30% 24P / IR GRILL FAST 35.00
#6										

NOTES

- #1 DID NOT WORK - REVERSED MARKS TRY LOWER TEMPERATURE LOWER BELT SPEED
- #2 BETTER - STILL NOT THERE TRY LIGHTER SMOKE SPRAY
- #3 SAME
- #4 PROGRESS! TRY SAME THERM
- #5
- #6

PTO-004167

U-04260

